U.S. Appl. Ser. No. 09/844,058
Amendment filed in response to
Notice of Allowance mailed 12/23/2004

Attorney Docket: D1815-00025DIV

Please amend the Claims, as follows:

1. (Presently Amended) A reinforcement for resisting flexure of a cementitious board having opposed faces, comprising:

an open mesh of high modulus of elasticity strands; wherein the high elasticity modulus of elasticity strands comprise E-glass, and wherein the alkali resistant thermoplastic material comprises a core sliver of thermoplastic fibers commingled with the high modulus of elasticity strands, and a plurality of sheath thermoplastic fibers which cover the core sliver thermoplastic ~~fibrs~~ fibers and the high modulus of ~~elastic~~ elasticity strands;

wherein the strands are covered by an alkali-resistant thermoplastic material adapting the open mesh for embedding in the cementitious board;

the strands extending across one another to define a mesh thickness;

wherein the open mesh is adapted with the mesh thickness for two embedded layers in the cementitious board; and

wherein the open mesh is adapted with the mesh thickness for positioning each embedded layer about 1/32 inch to about 1/16 inch from a corresponding one of the opposed faces to avoid spalling, while each embedded layer is spaced from a neutral axis of flexure of the cementitious board to resist flexure of the cementitious board;

wherein said alkali-resistant thermoplastic material is co-extruded with said strands to provide a substantially continuous coating of said alkali-resistant thermoplastic material about said strands; and

wherein said alkali-resistant thermoplastic material is selected from the group consisting of polyolefins and olefin copolymers.

2. (Previously Presented) The reinforcement of claim 1 wherein said thermoplastic material is fused at areas where said strands cross one another.

3. (Previously Presented) The reinforcement of claim 8 wherein said mesh is heated

after formation thereof to fuse or sinter said portion of the fibrous thermoplastic material to form said substantially continuous mass.

4. (Previously Canceled).

5. (Original) The reinforcement of claim 1 wherein said mesh has a strand count of about 2 to about 18 strands per inch in each direction.

6. (Original) The reinforcement of claim 1 wherein said strands comprise bundled glass fibers having a linear density of about 33 to about 300 tex.

7. (Previously Presented) The reinforcement of claim 1 wherein said mesh is no greater than about 0.020 inch in mesh thickness.

8. (Previously Presented) The reinforcement of claim 1 wherein said reinforcement includes an open mesh of intersecting transverse and longitudinal high modulus of elasticity strands covered by alkali-resistant thermoplastic material, wherein said thermoplastic material initially is fibrous, and wherein at least a portion of the fibrous thermoplastic material is fused or sintered such that the portion of the fibrous thermoplastic material is merged into a substantially continuous mass which substantially encapsulates respective high modulus of elasticity strands and which bonds together the transverse and longitudinal strands at areas of intersection, and wherein at least a portion of said thermoplastic material comprises one or more of polypropylene, polyethylene, copolymers of polybutylene and propylene, ethylene-propylene copolymers or other olefins, nylon, polyester, ethylene propylene rubber, thermoplastic polyolefin rubber, and ethylene-propylene diene monomer.

9. (Currently Amended) The reinforcement of claim 8 wherein said fibrous thermoplastic material is friction spun as a fibrous sheath on a core comprised of said high modulus of elasticity ~~strand~~ strands.

Claims 10-36 (Previously Canceled).

37. (Previously Presented) The reinforcement of claim 1, wherein the core sliver of thermoplastic fibers comprises one or more of isotactic or syndiotactic polypropylene, ethylene-propylene copolymers or other olefinic fibers, nylon, polyvinyl chloride, or polyester, and wherein the sheath thermoplastic fibers comprise one or more of polypropylene, polyethylene, copolymers of polybutylene and propylene, ethylene propylene rubber, thermoplastic polyolefin rubber, and ethylene-propylene diene monomer.

38 (Previously Presented) The reinforcement of claim 1, wherein said alkali-resistant thermoplastic material is applied via cross head extrusion to said strands.

39. (Previously Presented) The reinforcement of claim 1 wherein said olefin copolymers include ethylene propylene rubber, thermoplastic polyolefin rubber, ethylene-propylene diene monomer or copolymers of polybutylene and propylene.

Claims 40-46 (Previously Canceled).

47 (Previously Presented) A reinforcement for resisting flexure of a cementitious board having opposed faces, comprising:

an open mesh of high modulus of elasticity strands;

respective coatings on the strands, wherein the respective coatings comprise an alkali-resistant material adapting the open mesh for embedding in the cementitious board and wherein the respective coatings comprise a fused or sintered core sliver of thermoplastic fibers commingled with the high modulus of elasticity strands, and a fused or sintered plurality of sheath thermoplastic fibers which cover the core sliver thermoplastic fibers and the high modulus of elasticity strands; and

the strands extending across one another to define a mesh thickness.

48. (Previously Presented) The reinforcement of Claim 47, wherein the respective coatings are fused together where the strands cross one another to stabilize the strands in the mesh.

49. (Previously Presented) The reinforcement of Claim 47, wherein the respective coatings comprise fused or sintered fibrous alkali-resistant material, and wherein the respective coatings are fused together where the strands cross one another to stabilize the strands in the mesh.

50. (Previously Canceled).

51. (Previously Presented) The reinforcement of claim 47, wherein the core sliver of thermoplastic fibers comprises one or more of isotactic or syndiotactic polypropylene, ethylene-propylene copolymers or other olefinic fibers, nylon, polyvinyl chloride, or polyester, and wherein the sheath thermoplastic fibers comprise one or more of polypropylene, polyethylene, copolymers of polybutylene and propylene, ethylene propylene rubber, thermoplastic polyolefin rubber, and ethylene-propylene diene monomer.

52. (Previously Presented) The reinforcement of Claim 47, wherein the strands comprise bundled fibers with a Young's modulus of at least 1,000,000 psi.

53. (Previously Presented) The reinforcement of Claim 47, wherein said alkali-resistant material is co-extruded with the strands.

54. (Previously Presented) The reinforcement of claim 47, wherein said mesh has a strand count of about 2 to about 18 strands per inch in each direction.

55. (Previously Presented) The reinforcement of claim 47 wherein said strands comprise bundled glass fibers having a linear density of about 33 to about 300 tex.

56. (Previously Presented) The reinforcement of claim 47, wherein said mesh is no greater than about 0.020 inch in mesh thickness.

57. (Previously Presented) The reinforcement of Claim 47, wherein said alkali-resistant material is selected from the group consisting of polyolefins and olefin copolymers.

58. (Previously Presented) The reinforcement of Claim 47, wherein said respective coatings comprise one or more of polypropylene, polyethylene, copolymers of polybutylene and propylene, ethylene-propylene copolymers or other olefins, nylon, polyester, ethylene propylene rubber, thermoplastic polyolefin rubber, and ethylene-propylene diene monomer.

59-70 (Previously Canceled).